

REMARKS

Claims 1-5 and 12, 13, and 15-22 remain pending in this application with claims 1 and 15 being amended by this response and claims 14 and 23 being cancelled by this response. Support for the amendments can be found throughout the specification and original claims, specifically in original claim 14, in Figures 1 and 2, and on page 4, lines 18- 22 and page 7, lines 3-8. Thus, it is respectfully submitted that no new matter is added by these amendments.

Rejection of claims 1-5, 12-13, and 15-22 under 35 USC § 102(e)

Claims 1-5, 12-13, and 15-22 are rejected as being anticipated by Watkins (US 7,111,319, hereinafter Watkins).

Amended independent claim 1 recites a video apparatus. A digital decoder decompresses compressed digital data and generates a first digital stream. The apparatus further includes a video source of a first analogue signal and a video encoder. A first video decoder connectable to the video source generates a second digital stream based on the first analogue signal. The apparatus further includes mixing means coupled to the first video decoder and to the digital decoder able to mix the second digital stream and the first digital stream into an output digital stream to the video encoder, wherein the first video decoder provides a synchronizing signal to the digital decoder.

The claimed apparatus enables selective display, for example, on a plasma display, of either digital data from a first digital stream or analog data converted by the video decoder to a second digital stream. It further allows the combination of the digital data and the converted analog data for a picture-in-picture (PIP) display. The apparatus further allows the selective display of either of the data streams or of the combined PIP data as a conventional viewable analog signal after conversion of the selected digital stream by a video encoder.

Watkins describes an apparatus that comprises an audio/video decoder and a storage device, for implementing a set top box. The audio/video decoder receives one or more uncompressed audio signals and one or more compressed video and/or audio signals. The uncompressed audio signals may be tagged to the compressed signals, and any of the uncompressed audio signals and the tagged compressed signals may be stored on the storage device to be made available for playback relative to the tags (Watkins col. 1, lines 28 – 37).

The Office Action asserts that the present claimed arrangement is anticipated by Watkins, and specifically that Watkins discloses “a video source of a first analogue signal” and “a first video decoder connectable to the video source for generating a second digital stream based on the first analogue signal” as recited in claim 1 of the present claimed arrangement. Applicants respectfully disagree.

Watkins is completely different from the present claimed arrangement. Watkins nowhere discloses or suggests “a video source of a first analogue signal.” Channel decoders described in Watkins are commonly known in the art to output digital signals, and the channel decoders 132 of Watkins are nowhere described as delivering analog signals. Watkins describes the system as receiving “one or more uncompressed audio signals and one or more compressed audio/video signals” (Watkins col. 1, lines 29 – 32). The only video signals described in Watkins are explicitly labeled as compressed video signals and thus are received as digital signals. In a later passage, Watkins describes the STBFEED signal (one source of its signals) as “any appropriate uncompressed audio/video signal” (Watkins col. 3, lines 11 – 12). However, all of the examples cited thereafter for sources of the STBFEED are received as digital data (Watkins col. 3, lines 12 – 14). The term “uncompressed” in this single passage is evidently a typographical error, since both the prior cited passage (Watkins col. 1, lines 29 – 32), and the explanatory examples (e.g., web broadcast, satellite feed, WLAN signal, etc) (Watkins col. 3, lines 20 – 24) indicate that STBFEED is compressed digital data containing video and audio streams (Watkins, claims 15 and 18). The signal STBFEED is fed into a number of tuners and channel decoders, each set of which selects a particular channel (or program elementary stream) from the signal, but no indication is given that further decoding (decompression) and conversion from digital data occurs (Watkins Figure 1, Reference Nos. 140a-140n and col. 2, lines 59 – 62).

Also, Watkins nowhere discloses or suggests “a first video decoder connectable to the video source for generating a second digital stream based on the first analogue signal” as recited in claim 1. Because no analog video signal is received, no “second digital stream based on the first analogue signal” can be generated.

The Office Action cites the single A/V decoder in Watkins as disclosing both “a digital decoder for decompressing compressed digital data and for generating a first digital stream” and “a first video decoder connectable to the video source for generating a second digital stream.” However, two different devices are recited in the present claimed arrangement, distinguished as “a video decoder” and “a digital decoder” recited in claim 1.

This is further indicated by the phrase “wherein the first video decoder provides a synchronizing signal to the digital decoder” recited in claim 1, and as clearly shown in Figures 1 and 2. If there were only one decoder, no synchronizing signal would be necessary.

Further, as the Office Action concedes with regard to claim 14, Watkins does not disclose or suggest “wherein the first video decoder provides a synchronizing signal to the digital decoder” as recited in claim 14. Claim 14 has been cancelled by this response, and its features have been incorporated into claim 1. A first video decoder that “provides a synchronizing signal to the digital decoder” as recited in amended claim 1 is not disclosed or suggested in Watkins.

Thus, Watkins fails to disclose or suggest “a video source of a first analogue signal,” “a first video decoder connectable to the video source for generating a second digital stream based on the first analogue signal,” and an apparatus “wherein the first video decoder provides a synchronizing signal to the digital decoder” as recited in claim 1 of the present claimed arrangement. In view of the above remarks, Applicants respectfully submit that the rejection of claim 1 under 102(e) is satisfied and should be withdrawn.

Claim 14 was rejected in the Office Action as being unpatentable over Watkins under 35 USC § 103(a) with the assertion that “the use of synchronizing signal from one decoder to another decoder is old and well-known in the recording art” (Office Action page 5, Sec. 18). Applicants respectfully disagree. Because the feature of claim 14 has been incorporated into claim 1, the reasons for the patentability of claim 1 with regard to 35 USC § 103(a) will also be presented.

While a synchronizing signal is known in the art for synchronizing the output of a video decoder with that of an audio decoder, the use of a synchronizing signal from a video decoder to a digital decoder decoding a separate video stream, in order to enable the simultaneous display of two separate video streams, is a completely different use of synchronization. In Watkins, the timing relationship between the video signals and the audio signals, and the synchronization for display of multiple programs from the STBFED signal or from the HDD storage device, is maintained either with recorded wall clock timing or by using the relative received timing information of the different program streams to save them as bitstream synchronized signals (Watkins Fig. 7 and col. 8, line 4 – col. 9, line 17). There is thus no disclosure or suggestion in Watkins of synchronizing the operation of a video decoder with the operation of a digital decoder. Indeed, Watkins specifically teaches away from the use of a synchronizing signal from a video decoder.

Moreover, combining the known feature of synchronization of an audio decoder by a signal from a video decoder with the system of Watkins would only provide an alternative means of synchronizing the audio and video data streams in Watkins. Such a combination would not produce a system like the present claimed arrangement, in which a digital data stream from an analog video signal is synchronized with a decompressed digital video signal. Consequently, Applicants respectfully submit that claim 1 is also patentable over Watkins under 35 USC § 103(a).

Claim 2 is dependent on claim 1 and is considered patentable for the reasons presented above with regard to claim 1. Claim 2 is further considered patentable because Watkins fails to disclose or suggest “a digital encoder generates a third digital stream based on a second analogue signal” as recited in claim 2. The Office Action cites Reference Nos. 132a, 162, 160, and 166 of Figure 1 as showing this feature. However, as presented earlier in discussion of claim 1, Watkins fails to disclose or suggest analog signals except audio signals, and specifically fails to disclose or suggest “a second analogue signal” as recited in claim 2. The video signals in Watkins are from digital sources, either the STBFEEED signal described earlier, or the hard disc drive (HDD) signal, characterized as a Program Elementary Stream (PES) or an MPEG-2 encoded signal, both digital formats (Watkins Fig. 1, Reference Nos. 140 and 114 and col. 3, line 17). Further, Reference Nos. 132a, 162, and 160 cited by the Office Action as the digital encoder are described as a demultiplexer and a CPU “configured to control the operation of a device” such as a storage device, the HDD (Watkins col. 4, lines 10 – 28). Their output is stored on the HDD as “bitstream synchronized signals” (Watkins col. 8, lines 18 – 22). Thus, Applicants respectfully submit that the rejection of claim 2 is satisfied and should be withdrawn.

Claims 3-5, and 12-13 are dependent on claim 1 and are considered patentable for the reasons presented earlier with regard to claim 1. Thus, Applicants respectfully submit that the rejection of claims 3-5, and 12-13 under 102(e) is satisfied and should be withdrawn.

Independent claim 15 provides a first video decoder generating a first digital stream based on a first analog video signal. A second video decoder generates a second digital stream based on a second analog video signal. A digital processing unit at least connectable to the second video decoder generates a third digital stream based on the second digital stream. Mixing means is connected to the first video decoder and to the digital processing unit for outputting to a video encoder an output digital stream generated from the first digital

stream and the third digital stream. The first video decoder provides a synchronizing signal to the digital decoder.

The apparatus of claim 15 advantageously enables the combining of a digital stream based on an analog video signal with another digital stream based on a second analog signal. The two streams can be properly displayed when combined because the first video decoder provides a synchronizing signal to the digital decoder that is used to decode the additional digital stream.

Amended independent claim 15 includes features similar to those of claims 1 and 2 and is considered patentable for the reasons presented earlier with regard to claims 1 and 2. Thus, Applicants respectfully submit that the rejection of claim 15 under 35 USC § 102(e) is satisfied and should be withdrawn.

Claim 15 also incorporates the feature of claim 23, which is cancelled by this response. Claim 23 was rejected in the Office Action as being unpatentable over Watkins under 35 USC § 103(a). Applicants respectfully submit that the synchronizing signal provided from the video decoder to the digital decoder as recited in amended claim 15 is not obvious for the reasons presented above with regard to claims 1 and 14. Thus, Applicants respectfully submit that claim 15 is further patentable over Watkins under 35 USC § 103(a).

Claims 16-22 are dependent on claim 15 and are considered patentable for the same reasons as claim 15. Thus, Applicants respectfully submit that the rejection of claims 16-22 is satisfied and should be withdrawn.

In view of the above remarks and amendments to independent claims 1 and 15, it is respectfully submitted that Watkins fails to anticipate the present invention as claimed in claims 1-5, 12-13, and 15-22. Consequently, withdrawal of the rejections of claims 1-5, 12-13, and 15-22 is respectfully requested.

Rejection of claims 14 and 23 under 35 USC § 103(a)

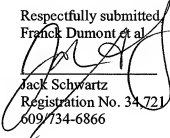
Claims 14 and 23 are rejected as being unpatentable over Watkins (US 7,111,319, hereinafter Watkins).

Claims 14 and 23 are cancelled by this response. The rejection of claims 14 and 23 is thus moot.

The limitations of claims 14 and 23 have been incorporated into claims 1 and 15 respectively, and the patentability of claims 1 and 15 is discussed with respect to the rejection under 35 U.S.C. § 102(e).

Having thus fully addressed the Examiner's rejections, it is believed that, in view of the amendments and remarks, the application stands in condition for allowance. Accordingly, then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No additional fee is believed due. However if an additional fee is due, please charge such fee against deposit account 07-0832

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April 21, 2009